DOCUMENT RESUME

ED 120 985 95 EA 008 161

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TITLE Designing a Study of Available Resources. B-3 Evaluating the Utilization of Learning Resources, Document No. 10c, Revised. Independent Study Training Material for Professional Supervisory Competencies.
INSTITUTION Texas Education Agency, Austin.; Texas Univ., Austin. Dept. of Educational Administration.
SPONS AGENCY Bureau of Education for the Handicapped (DHEW/OE), Washington, D.C.
PUB DATE 75
NOTE 44p.; Related documents are EC 082 599-607, EA 008 159, and EA 008 162-166

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage
DESCRIPTORS *Educational Resources; Elementary Secondary Education; *Evaluation; Instructional Materials; Instructional Materials Centers; Media Selection; *Performance Based Education; Resource Materials; Supervisors; Supervisory Activities; *Supervisory Training; Training Techniques
IDENTIFIERS SEST; *Special Education Supervisor Training Project

ABSTRACT

This self-instructional learning packet is one part of a competency-guided program for instructional supervisor preparation developed by the Special Education Supervisor Training (SEST) project. Teaching the supervisor to determine the appropriateness of learning resources, including instructional and resource materials, is the goal of this training packet. The user of this packet is to collect information on what materials are available, who uses them (and how effectively), and what materials are not being utilized. This information is to be correlated with a materials evaluation measure. The supervisor observes teachers and students using the materials and interviews them to gain a more complete picture of the materials' effectiveness. He should also find out from them what assistance they need to improve their utilization of learning resources. These resources include not only textbooks and other district-provided materials, but also those from area learning resource centers and instructional radio and television. These resources may not be fully utilized for many reasons, including unavailability of necessary equipment, inflexible work space, and lack of duplicate copies. In some of these cases, the supervisor may be able to correct the situation. (DS)

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For

Professional Supervisory Competencies

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Document #10c

DESIGNING A STUDY OF AVAILABLE RESOURCES

by Billie Grace Herring

With Revisions by Ellen Victory Bell

B-3 Evaluating the Utilization of Learning Resources

Special Education Supervisor Training Project

Department of Educational Administration

The University of Texas at Austin

1975

EA 008 161

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PREFACE

The learning packets developed by the Special Education Supervisor Training Project (SEST) at the University of Texas at Austin are competency-guided training materials keyed to selected critical competencies for professional supervisory personnel in school leadership positions. A series of ten packets, each dealing with one of twenty-four critical competencies, has been developed. A list of the items available in the series appears on the last page of this document. These packets were developed locally to meet the need for independent study material to supplement formal training and field experiences in a professional preparation program.

This learning packet is intended for inclusion in a learning laboratory containing packets and many other types of materials for use in independent study. The equipment necessary to use those materials, as well as work space, is provided in the Learning Lab to assist users in choosing material and working through it at their own pace. A complete directory of material in the Learning Lab at the University of Texas Department of Educational Administration has been published by the SEST Project under the title, A Directory of Competency-Guided Supervisory Training Materials for Independent Study.

The learning packets have undergone extensive evaluation and revision through the coordinated efforts of several people. Corine Martinez

served as compiler and editor of the series. SEST students and research assistants involved in packet evaluations were Gwen Carter, Patricia Griner, Laurie Hunt, Mary Miller, Pat Miller, and Eliseo Ruiz. Final revisions on the packets were made by Ellen Victory Bell, Gwen Carter, Sharon Guajardo, and Jim Sanders.

Appreciation is expressed to all those who devoted time to the development of various learning packets: Carol Clark (Giesecke), Joan DeLuca, Stuart DeLuca, Jane Duckett, Pat Miller, and Drs. Ben Harris Billie Grace Herring, John D. King, Kenneth McIntyre, and Darryl R. Townsend.

The University of Texas at Austin

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OVERVIEW

Competency:

Given an array of learning resources currently available for use, the supervisor can design and conduct a study to determine the extent and appropriateness of their utilization, and based on the results of that study, can make recommendations for the improved utilization of specific learning resources in specific ways.

Objectives:

Objectives for the module can be divided into two major categories: (1) collecting preliminary information about what materials are available, who is using it, what is not being used, and how present learning resources rate on an evaluation checklist; and (2) observing teachers and students using materials, interviewing teachers, pupils and others about learning materials, and what assistance they need to improve their use of the materials.

1. Collecting Preliminary Information
   a. Identify, list, and briefly describe the sources of instructional materials/learning resources available to teachers.
   b. Develop a form for inventorying the learning resources available in selected classrooms at a given time.
   c. Formulate procedures for determining which materials are not being used.
   d. Infer, tentatively, the reasons non-users fail to exploit the sources of materials.
   e. Develop a learning materials evaluative checklist of characteristics.
   f. Evaluate given learning resources using the checklist.
   g. Prepare guidelines for determining if materials are being used appropriately.
2. Conducting a Formal Study of Materials Utilization
   a. Develop a form for recording observations of pupils and teachers using learning resources.
   b. Develop a questionnaire or interview form that will elicit from teachers and pupils their perceptions of the desirability of given learning resources and the positive and negative aspects of using the resources.
   c. Develop a questionnaire or interview form to be used with other professional personnel who observe and/or participate in the choice and use of learning resources at the building level.

d. Develop a questionnaire or interview form that will elicit from teachers suggestions about the assistance they feel is needed to improve use of instructional materials.

Evaluation:

Upon completion of these task assignments, the user will successfully respond to the Self-Evaluation Checklist, using the Checklist Answer Sheet provided, and will pass the post-test, using the Post-Test Answer Sheet.

DIRECTIONS

1. Take the Post-Test. If you feel fairly confident of your ability to evaluate the utilization of learning resources, skip to the back of the packet and take the Post-Test. Use the Post-Test Answer Sheet to record your answers.

2. Score Your Test. Score your test from the Post-Test Answers, page 29. If 75 percent of your answers are correct (16 of the items), consider yourself as having met the criteria for achievement on this module. If you responded to less than 75 percent of the answers correctly, continue with the module.

3. Read "Description of Situation" and "Task Assignment." (Pages 4-7). You may want to put a paperclip on this part of the module or use a bookmarker for handy reference later.

4. Read "Part I: Collecting Preliminary Information."

5. Read "Part II: Conducting a Formal Study of Materials Utilization."

6. Use the bibliography, page 31, to locate other sources of information on evaluating utilization of learning resources, before writing your task assignment.

7. Write the task assignment, referring frequently to pages 4-5, "Description of Situation" and "Task Assignment," pages 6-7.

8. Complete the Self-Evaluation Checklist, using the Self-Evaluation Checklist Answer Sheet at the end of the packet to record your answers.

9. Take the Post-Test. Answer using the Post-Test Answer Sheet provided at the end of the module. If you do not answer at least 75 percent of the items correctly (16 items), reread the module.

10. Read "Applying the Results of the Materials Utilization Study," pages 32-35, for further suggestions.

DESCRIPTION OF SITUATION

Assume that you are the new supervisor in XYZ School District. It is January and you have had an opportunity to get somewhat acquainted with your job.

The District

The district in which you work has 20,000 pupils in two high schools, five middle schools, and sixteen elementary schools. It is staffed by a general superintendent and two assistant superintendents, one of whom, your superior, is the assistant superintendent for curriculum and instruction. There are supervisory personnel in the major subject areas, kindergarten, primary, learning resources (new name for libraries) and counseling.

The district is suburban, largely middle class, and has a high proportion of lower middle class constituents. Its ethnic composition is 25% Black, 12% Mexican-American, and 63% White. The constituents are fairly conservative politically and educationally. Most work in industry, construction, or as office workers. The tax base for the district is large and the economic index is high because of the large amount of industry located in the district.

Official district policy says that instructional improvement and in-service education are priorities, but little released time or salary inducments are provided. Funds for special projects are usually available for the asking, however.

The curriculum in the district is largely subject-centered. All schools are graded and most are housed in buildings less than 20 years old but with self-contained classrooms. Each school is staffed with a library/learning resources specialist.

Special education classes have been held on a categorical basis for many years, but last year, after a phase-in of one year, the district moved into Plan A. Mentally retarded pupils are still grouped in separate classes. Other pupils are taught in resource rooms or by resource teachers in their regular classrooms. A number of the resource teachers were moved from categorical assignments into the resource rooms along with new personnel, most of whom have just completed teacher education programs.

Your situation

You have visited in most classes during the first semester. You have held one in-service meeting and have participated with teachers in district professional association meetings and in an Education Service Center workshop on implementation of Plan A.

As you have visited classes and talked with teachers, you become aware that many of them are concerned about (1) achievement of pupils which the teachers perceive to be less than it should be, and (2) disinterest of many pupils in school and in the activities that go on there.

Teachers are asking for help in dealing with certain types of problems: the pupil who will not participate in reading instruction from basal textbooks; the pupil whose speech is so poor he has difficulty getting along with others; the pupil who cannot seem to learn math although he is able to count; the pupil who never stays in one place more than two minutes; the child who is said to be hard of hearing and who does not speak, but who the teacher suspects can hear and does understand language; and the cerebral palsied child confined to a wheelchair who doesn't want to do anything but watch television. Several teachers have suggested that they need better instructional materials to use with these pupils.

You are particularly concerned about teacher morale. The teachers seem to feel that they cannot do anything about curriculum themselves and that the choice in appropriate instructional materials is quite limited.

You outline the problems you have observed to yourself and determine to talk with your superior, the assistant superintendent for curriculum and instruction. You request funds for additional materials, which would catch teachers' imaginations and spur them out of their frustrations. The assistant superintendent hears your request, but immediately comes back with the question, "What happened to all that $23,000 that was spent on materials three years ago? Can't the teachers use them?" No one told you that so much had been spent on materials two years ago and you also wonder what happened to it. Why do teachers seem to imply that more materials are needed?

Some checking reveals that part of the funds went to an instructional TV consortium in the area for programming; wireless amplification systems were installed in three schools which had hard-of-hearing classes; and television receivers were bought for 2/3 of the classrooms. Such expenditures left little for investment in software.

The following Task Assignment outlines specific tasks to be accomplished in response to this situation.

TASK ASSIGNMENT

Low teacher morale concerning the variety of materials to use with many different kinds of students can be identified as the problem. It is your task to collect information on what is available and if it is being used, and to improve the use of learning resources.

Specifically your tasks for this learning packet are to:

1. Collect Preliminary Information
   a. Identify, list and briefly describe the sources of instructional materials/learning resources available to teachers.
   b. Develop a form for inventorying the learning resources available in a classroom at a given time.
   c. Prepare a brief report on procedures for determining which materials are not being used.
   d. Prepare a brief report on the possible reasons non-users do not exploit the sources of materials.
   e. Develop an evaluative checklist of learning materials characteristics.
   f. Evaluate one of the following using the learning materials checklist:
      1. cuisenaire rods
      2. Sullivan programmed reading (one component)
      3. Cracking the Code, SRA
      4. Other well-known learning material
   g. Prepare district guidelines to determine if materials are being used appropriately.

2. Conduct a Formal Study of Materials Utilization
   a. Develop a form for recording observations of pupils and teachers using learning resources

   OR

   b. Develop a questionnaire or interview form that will elicit from teachers and pupils their perceptions of the desirability of given learning resources and the positive and negative aspects of using the resources.
   c. Develop a questionnaire or interview form to be used with other professional personnel who observe and/or participate in the choice and use of learning resources at the building level.

d. Develop a questionnaire or interview form that will elicit from teachers suggestions about the assistance they feel is needed to improve use of instructional materials. This questionnaire or interview form might be additional questions on the form developed under category "2b."

PART ONE

COLLECTING PRELIMINARY INFORMATION

I: COLLECTING PRELIMINARY INFOFMATION

The information in this part of the module includes sources of instructional materials/learning resources, users of the materials, utilization of the materials, an evaluative checklist of characteristics of learning materials, and district guidelines for determining the appropriateness of use of the materials. Also included are some questions administartors can be expected to ask about materials utilization. These questions should be considered when developing the interview or questionnaire form in Part II.

SOURCES OF MATERIALS

The sources of materials from which teachers may draw will vary somewhat from district to district. Most of the sources below, however, will be available to teachers in a larger district. Each source is listed and discussed briefly.

1. District level library or learning resources center. Some districts have chosen to consolidate many of their materials purchased with state and/or local funds in a single center from which teachers may draw materials for classroom use. Such a center avoids duplication of materials in every building in the district and usually provides assistance from a staff specialist to consult with teachers about their needs. A district center staffed only by a clerk or secretary, however, is unlikely to be very helpful since the clerical level person is not trained in instructional strategies and matching of strategies and materials to educational diagnoses. Provided the center is properly staffed it may become a primary source of help for teachers. The district center will often experiment with a single set of materials until the materials have been proven before it invests in multiple sets for school use. It also provides materials for examination and preview.

2. Library/learning resources center in each school building. The concept of unified print/nonprint or audiovisual collections and services is a reality in most states. Individual school libraries are quickly moving to encompass all formats of materials and appropriate hardware for their use in each building. Staffing by professionals trained in books and media further enhances the usefulness of the LLRC.

3. Education service center collections. In states that have regional education service centers, some education service centers maintain circulating collections of materials. A few service centers provide only an examination center from which teachers may obtain materials for preview before purchasing them for use in their own classrooms.

4. Special Education Instructional Materials Center (SEIMC) networks. SEIMC networks have just recently undergone a name change to Area Learning Resource Centers. If materials are unavailable from a district center or an education service center, the regional service center may initiate a request into the ALRC network for materials meeting given criteria. On a statewide basis, or even a national basis, (utilizing the National Center on Educational Media and Materials for the Handicapped) materials may be obtained to help a given pupil.

5. Textbook center for school district. While textbooks supplied by the state or district are usually placed in schools under the responsiblity of the principal, at times it is necessary to go to the district center in order to locate materials that use strategies needed for given pupils. Through the principal, teachers should have access to all levels and types of textbook materials available in the district.

6. Materials purchased by principal for use in a given building. Often quite substantial amounts of materials are found in one school because the principal and teachers have chosen to use the instructional funds, activity funds, or gift funds such as those provided by parent-teacher organizations to obtain materials which teachers particularly wish to use with pupils. Sometimes these materials are housed in the library/learning resources center (which seems most appropriate and efficient) but often they are housed in given classrooms (a real disadvantage in having all teachers within a building know what materials are available.)

7. Materials purchased by teachers. In spite of the responsibility of the district to provide appropriate materials, it is not unusual to find teachers purchasing materials themselves in order to have the materials to use. Obviously, such materials are the teacher's personal property and lending them to other teachers is at the discretion of the owner. Occasionally, however, teachers are willing to share their materials at least for examination purposes, if not for actual use with pupils.

8. Instructional radio and television. If the district participates in support of a broadcast or cable instructional television system, the programming provided may be considered part of the learning resources available to pupils. ITV stations usually provide a teacher's guide and program scheduling on request. Sadly, many teachers ignore the use of ITV because of scheduling difficulties or because they deem the programming inappropriate for a whole class of pupils.

9. Library of Congress Division of Service to the Blind and Physically Handicapped. Usually operating through the state library, the division provides "talking books," plus some magazines and newspapers, in audio recorded form for persons whose physical disabilities keep them from using regularly printed books. Persons who may qualify include blind and partially sighted persons, cerebral palsied or other persons who find it difficult to hold a book. Service is available on long playing records or on cassettes; equipment is provided free of charge to users who are eligible and a franking privilege provides free postage for returning materials to the library. Many special education pupils are eligible for the service but do not use it. A catalog of available materials is provided.

MATERIALS UTILIZATION

1. Users of the materials. By getting acquainted with the learning resources specialists coordinating use of the sources listed above, it will be possible to learn who uses the resources of any given agency. For example, the building level library/learning resources specialist will know if teachers come to obtain materials for use in the classroom and whether students use the resources of the library. Most agencies which provide materials maintain files of registered borrowers or maintain circulation records to know who their users are. A sample of the charge file at three given dates (the charge file contains a record of all materials currently in circulation) will give a fair picture of the use and users of any given agency.

Do the users of the sources of materials which are available represent all, most, or only a small percentage of teachers? Are there reciprocal borrowing privileges among the different agencies which provide materials?

2. Amount and frequency of borrowing from each source. The circulation records mentioned above help to indicate the frequency with which given teachers borrow materials and the quantities of materials they borrow.

3. Non-users and their reasons. If a given teacher does not borrow materials from any of the sources mentioned, why not? What perceptions of the non-user do the learning resource specialists have? What data does talking with a teacher who is a non-user of the sources provide? There may be several reasons a teacher chooses not to use the available source: all materials needed are in the classroom (unlikely); the hours at which materials may be obtained are inconvenient; the sources are located at inaccessible places; the lag time before obtaining materials is too long; circulation policies that restrict use of materials to two weeks do not allow for appropriate use in the classroom; there is no comprehensive listing of materials available from each source; if there is a listing, it does not tell enough about the materials to help in selecting appropriate materials for a given pupil; or the teacher is unmotivated to try new materials.

4. Extent to which materials are used. How many different items are used? With what frequency? From what sources have they come? These and other questions must be asked in the schools to determine both quantity and quality of use.

5. Materials in classrooms. Another approach to assessing the frequency and extent of materials use is to inventory the materials that are found in classes at a given time. Although such an inventory does not indicate whether the materials are being used, at least their presence provides for the possibility of use. From where do the materials found in the classrooms come? Are they all from one or two sources, or do they represent several of the sources listed above?

6. Materials not used. Persons in charge of the various materials centers can help provide information on materials which are available but are not used by teachers very often. Circulation records may also help provide such data. If materials are not being used, why? Are they poor materials? Are they complicated to use and teachers need help in arranging for their incorporation into pupils' learning activities? Are they incomplete, lacking teacher's manuals or playback equipment? Are there expendable items such as workbook sheets which have been used up and not replaced? Is the cost of replacing such expendable items prohibitive or does copyright constraint prevent in-house duplication of expendable items? Such data may be obtained on a visit to the school by the supervisor to inventory a selected sample of classrooms, or it may be gathered by having teachers complete an inventory of items on certain dates not announced in advance.

Among the materials found in the classrooms how many actually are in use and how many are on the shelf? If not in use, why? What are the materials that are actually used? What are those that are sitting on the shelf?

Are teachers using more materials for pupils with a particular type of learning difficulty such as for partially sighted pupils, or do they tend to use them for all pupils?

7. Manner in which materials are used. Before the supervisor can assess the quality of use of materials with pupils, it is necessary for him to have some knowledge of appropriate use of the materials. Such knowledge comes from studying teacher's manuals, validation data, and other instructions prepared by the producer of the materials. Either written notes or a mental checklist of characteristics of materials will help the supervisor remember salient points of the materials. One such evaluative checklist follows.

A SAMPLE EVALUATIVE CHECKLIST

Title of materials_____

_____

Producer and address_____

_____

Cost_____

Format (list all components):_____

_____

_____

List expendable items with cost_____

_____

Target audience

Age___ Grade level____ Interest level_____ Content area_____

Skills/attitudes taught_____

Language, geographic, or ethnic orientation_____

_____

Definition of objectives:

Not Specified	Vaguely Identified	Clearly Identified	Specified in Behavioral Terms
1	2	3	4

Identification of entry level behaviors:

Not Indicated	Inferred Only	Generally Defined	Explicitly Defined
1	2	3	4

Coverage of Content:

Superficial	Thorough in Part		Systematic and Complete
1	2		4

Technical quality of materials:

Sloppy	Amateurish	Semi-Professional	Highest Professional
1	2	3	4

Comment_____

_____

Procedures Provided for Evaluation

Written____ Oral ____ Performance ____ Observation_____

Technical quality of evaluation provided

Inadequate___ Needs Elaboration___ Adequate___ Very Good___

Expected pupil interest in materials

Boring___ Questionable___ Interesting____ Exciting____

Feedback/reinforcement provided

Lacking____ Seldom____ Usually____ Frequently____

Pacing controlled by

Materials_____ Teacher_____ Pupil_____

Validation Data

Not Provided____ Some but Insufficient____ Sufficient____ Thorough___

Summary of your assessment:

Do you recommend purchase? No____ Yes____ How many____

Will you use if purchased? No____ Probably____ Definitely____

Name_____

School_____

Position_____

Telephone_____

DISTRICT GUIDELINES

Does the school district have guidelines/criteria which will help teachers and supervisors determine whether appropriate use is being made of materials? If so, are they being applied? If not, what should a supervisor or teacher keep in mind in determining which materials to use with a given pupil?

1. Appropriateness for the pupil. Age/interest level of pupil, achievement level, special difficulties or limitations on use of materials, and the pupil's preferred learning modality must be considered in evaluating whether materials are being used appropriately with a pupil. One very difficult aspect of selecting materials is finding materials that have fairly high interest levels and are fairly mature for older pupils, but are not too difficult in achievement level. Some materials require pupils to use visual symbols, others verbal symbols that may be spoken or may be written; and some use tactile items to reinforce learnings. Is there any one of these approaches most in keeping with a given pupil's learning modes?

2. Characteristics of the materials. (a) What is the symbol system employed? Is it combinations of words, pictures, or other symbols? (b) What kind of realism cues are provided? How much practical detail is given in color, motion, dimensionality, and actual reproduction of sounds? These realism cues vary on a continuum from concrete actual objects to the very abstract. Does the pupil need all detail sketched in, as in a photograph, or would he be confused by so much detail and therefore requires that much visual noise as well as some information carrying visual elements be eliminated in the interest of getting to the basic information required? To what extent can the pupil generalize using abstract symbols such as language and numbers? (c) What sensory channels do the materials use--auditory, visual, tactile, or various combinations of these? If combinations are used, does one sensory channel interfere with the other, or have factors of redundancy and switching time been taken into account in combining the materials? (d) How much control does the user have over the use of the materials? Can he pace himself or sequence the materials to suit himself? Can he determine when he will use the materials, or are there outside constraints such as time of a television broadcast or given time of day when time sharing programs and open lines require use of computerized instruction? To what degree is the ability to pace, sequence, and determine use of materials desirable for given pupils and when is it undesirable? (e) What kind of learner response demands are made? What kind of

practice does the learner have? What kind of feedback does he receive? While the answers to the questions about characteristics of media vary greatly in terms of pupils and many other variables, at least some knowledge in this area will help teachers choose wisely. (Levie)

3. Quality of instructional design. How carefully do the materials define objectives stated in measurable terms? Do they give evidence of having been carried out in the preparation of the materials? What helps are given teachers in the assessment of learning that has taken place as a result of using the materials? Have the test or evaluation questions been validated? What steps will the teacher need to take in order to use the materials? How time consuming and difficult will any preparatory steps be?

4. Potential for modification of materials. Would the materials be translatable into another medium, such as filmstrip to slides, audiotape to script, or phonodisc recording to cassette tape? What effects on learning would such modifications have, if any? Do the materials lend themselves to division into shorter, smaller learning units should that be necessary? Do they lend themselves to consolidation into larger units for pupils who move through them more rapidly than expected? What is the frequency of feedback and reinforcement given pupils? Should the schedule of reinforcement need to be increased or decreased for a given student, would such modification be possible?

5. Appropropriation of instructions to local classroom needs. Teachers should be expected to follow the design of the materials and the prepared instructions for use of materials unless they have already tried them and modified them for better results. Too often, teachers do not take or have time to follow the instructions that accompany materials or they tinker with the instructions, only to find that the materials do not result in the learning expected.

6. Teacher motivation for using materials. What kinds of reinforcements are given to teachers who try new materials? Are they given opportunities to submit reports of such trials for publication? Are they encouraged and supported financially and otherwise in submitting papers to meetings and presenting them? Are notes about use of new materials made in teacher personnel files?

7. Pupil motivation for using materials. Certainly interest in the materials, pleasurable experiences while using them and a sense of learning from the materials all provide continuing motivation. What kinds of tangible and visible reinforcements of this type do the materials offer?

INFORMATION NEEDED BY ADMINISTRATORS

If improvements are to be made district-wide in the use of materials, administrators need to be supplied with information that can be used in decision making. Information supplied should be about learning resources, personnel, space, and equipment or other budgetary items that improve the use of learning resources.

1. About materials. Where are the materials actually located and used? Have they placed in the district center? Were funds or materials channeled to the region service center? Were materials placed in individual schools? Which ones? Approximately what percentage of materials purchased are found through each source?

What percentage of materials available to teachers are actually being used? With what frequency are they being used? Are equipment and space available for maximal use?

What percentage of teachers are actually using some of the materials?

What cost investment per pupil has been made in materials each year to date? How does this figure compare with the guidelines in the administrative handbook?

2. Other materials available for pupils. To what extent do special education pupils have access to the materials provided by the district for all pupils? Are teachers allowed access to these materials without prejudice? Such materials will include the availability of textbooks, including teacher's guides and accompanying media, and expendable materials such as workbooks and tests. Are special education pupils allowed unhindered access to the building level library/learning resources center? Does the staff in charge make special provision for special education pupils in selecting materials and in planning programming activities? What is the amount of use of a building level LLRC by special education pupils and teachers compared with the use by other teachers and pupils?

Does the district participate in funding the region service center special education materials collection? If so, is access to and delivery of the materials commensurate with the support supplied by the district? What percentage of support does the district give the service center materials collection and what percentage of use of the center's materials is represented by the district?

If the district supports instructional television programming, do special education pupils have access to receivers for viewing at

appropriate times? How many pupils use the television programming and what percentage of special education pupils is this?

What other community, state, or national sources are being exploited by teachers of special education pupils?

What is the mean cost of materials purchased by teachers from their own pockets during the past year and what is the range of costs?

3. Other Needs. If additional staff support is needed to improve materials use, how many man hours per week are represented by the needs? How many full time equivalent aides or clerks does this represent?

If additional equipment is needed, what is the total cost and the cost per pupil, including service contracts and blank software for local production? Could production of materials be centralized to avoid duplication of equipment?

PART TWO

CONDUCTING A FORMAL

STUDY OF MATERIALS UTILIZATION

CONDUCTING A FORMAL STUDY OF MATERIALS UTILIZATION

Part Two of this packet includes some suggestions on conducting a materials utilization study. Formal observation of use of materials and some anticipated responses to interview questions on how to improve the use of materials are included.

Obviously all teachers in the district cannot be formally observed or interviewed, so a sample of the total teaching population must be drawn. The sample should be determined on the basis of grade levels, disabilities represented, curriculum patterns in the different schools and other factors. Also, teachers to be interviewed or observed might be selected for a variety of numbers of years experience and educational preparation.

Objectives of the study, whether interview/questionnaire or observation, must be determined. Primary consideration must be given to how the information collected will be used.

In structuring the questions to be asked or what is to be observed, ease of tabulation once the data is collected should be remembered, and whether it is possible to quantify the data.

OBSERVATION OF USE OF MATERIALS

A helpful data gathering device is to observe actual use of materials in classrooms. A sampling of classrooms and materials in use might be chosen.

For accurate recording of observations, some type of guide or checklist appears useful. What should such an observation guide contain? Perhaps the supervisor desires data about pupils who are using the materials, about procedures being followed, about the materials themselves, or about pupil responses and attitudes toward the materials. Some of the above data might be implied by observation of what is being done in a given classroom.

In addition, talking with pupils and teachers about their use of materials can prove helpful. Questions might include those such as the pupil's liking for the materials, what he enjoys most about them, what he likes least about them, and what he perceives he has learned from them. Similar questions might be asked of teachers. Teachers' perceptions of how easy the materials are to use, how the materials compare with similar ones and the length of time the materials maintain pupil interest all prove helpful.

Observational Information from other professionals. Other persons in the building may be able to supply impressions about the frequency and extent of use of some instructional materials. If the principal spends time observing in classes, his opinions should be sought. Librarians/learning resources specialists are trained to talk with teachers about materials in relation to pupil learning. What is their evaluation of both the extent and quality of use of materials in a given classroom? Are they being asked to supply supplementary materials relating to those in use in the classroom? Do the materials in use stimulate pupils and teachers to seek additional materials from the learning resources center? Do they put a heavy drain on equipment available through the center?

Other supervisors who visit the building may have casual observations based on discussions with other teachers, or actual observation in classes. Student teachers and their college supervisors may also be able to supply such information.

INTERVIEW OR QUESTIONNAIRE ON

IMPROVEMENT OF THE USE OF LEARNING RESOURCES

While gathering data on the extent and quality of use of learning resources, an opportunity is provided to gather opinions and perceptions of teacher and other professionals about what would improve the use of materials. Interview questions or a written questionnaire or both should be considered as instruments for this purpose.

Persons consulted--Who are the users of materials and the personnel who supply materials to the users who might have insight into both positive and negative aspects of the use of learning resources? Certainly teachers should be consulted first about the use of materials in classrooms. Some principals who are sensitive to teacher motivation and instructional problems may also provide useful data.

Among persons at the heart of the process involved in helping teachers obtain learning resources are library/learning resource specialists in each school building, and the district's librarian/resource specialist or the regional service center learning resources specialist. These persons may either be helpful in diagnosing problems or they may inadvertently be a part of the problem because of the regulations for borrowing, timing of purchases, and other policies they help to determine. A detailed discussion with materials specialists is a necessary and useful activitiy.

Problems in using instructional materials--Some speculation about the responses that will be obtained from the persons consulted will be helpful in framing a questionnaire or interview form. Some of the responses may fall into the category of problems requiring administrative correction. Others may concern changes that can be made on the building or district level without administrative approval. Still others may involve teacher skill and motivation and will become likely areas of concern in planning in-service education.

1. Lack of support staff. Some teachers may feel that with the high degree of individualization required of many materials, support staff members are needed to help pupils use the materials. Staff for duplication of expendable materials, and for adequate record keeping of pupil progress may be another problem mentioned.

2. Insufficient diagnostic data. Other teachers and materials specialists may feel that they have insufficient diagnostic data about pupils to select materials particularly appropriate for a given pupil.

While teachers may be trained to gather some of this data, and routine testing and pupil placement testing may provide other data, special information is sometimes lacking on learning modalities, unusual learning disabilities, problems with social adjustment, personal reactions to certain school activities, and pupil attitudes. If such data are not forthcoming from educational diagnosticians at the district or regional level, the supervisor may need to consider ways in which such data can be obtained.

3. Inflexible work space. From time to time, teachers complain that they cannot have pupils use individualized materials because there is no quiet place for them to work in an undistracted manner and without interruption. Makeshift or simple table top carrels often provide the answer to such objections. Rearrangement of space or reallocation of space with the cooperation of the principal may prove to be the catalyst that encourages teachers to experiment with different materials and instructional approaches.

4. Unavailability of equipment. Since many learning materials systems use audiovisual media, the availability of playback equipment may be a negating factor. Sometimes the equipment is unavailable, or is not maintained adequately. Some problems also occur when inexpensive equipment meant for personal use, such as cassette players, are purchased for heavy-duty school use. Learning resources specialists should be able to help in purchase of future equipment and supervisors should be acquainted with the work of the two major evaluative agencies for educational equipment: 1. Educational Products Information Exchange Reports (EPIE) and 2. Library Technology Reports (LTR) produced by the Council on Library Resources Additional equipment evaluations appear in journals but they do not compare different brands of the same product as do EPIE and LTR. Sometimes the problem with playback equipment is lack of service contracts or locally available service so that there are large amounts of down time. At other times the problems of teachers and pupils concern borrowing regulations that are restrictive and do not allow sustained use of the equipment. Sometimes, teachers are afraid to let pupils use equipment for fear that it will be broken. Considerable effort may need to be expended to assure teachers that equipment is meant to be used and personal liability is not at stake when equipment wears out or needs repair.

5. Borrowing regulations. Borrowing regulations concerning equipment also bring up the question of borrowing regulations for learning resources. Unfortunately, the usual library borrowing period of two or three weeks sometimes is imposed on learning resources that are meant to be used over a period of a semester or term. Such regulations stifle the use of materials and cause teachers to cease to experiment with them.

6. Purchasing policies. A problem related to business office policies but that sometimes may be controlled within the learning resources centers or within regulations set by the supervisor, concerns the timing of purchases of materials. It a teacher uses materials from a regional center and finds them ideal for a given group of pupils, it should be possible to purchase them for use in that school promptly (three to four weeks at most) rather than have to wait for some arbitrary ordering date. Often the pupils who need the materials have moved on to another school by the time materials arrive.

7. Lack of variety of materials. Undoubtedly some teachers will suggest that more variety in the materials available would encourage them to use more resources. This is a convenient excuse and in order to pinpoint what is meant by variety, teachers should be questioned as to whether they mean variety in level of materials, content areas, symbol systems, responses made by pupils, feedback, or other characteristics. If the teacher can identify specific needs in terms of variety, useful data for future purchases may be provided.

8. Lack of duplicate copies. Another serious complaint, especially when teachers use a district-wide learning resources center, is the lack of sufficient duplicate copies of popular materials such as the Sullivan programmed reading materials from McGraw-Hill; cuisenaire rods, Weston Woods cassettes and books REACH programs by Economy Co., and Cracking the Code from Science Research Associates. Materials which have proven successful with pupils should be purchased in multiple sets or copies so that they are available when and where needed.

9. Insufficient planning time. Other teachers may raise the problem of insufficient planning time to examine materials and plan use of the materials with individual pupils. This is a justifiable complaint in most schools where teachers are expected to spend one afternoon per week in faculty meetings, another in in-service meetings, and possibly still another afternoon or evening working with professional organizations. A re-evaluation of after school requirements may be indicated.

10. Lack of teacher preparation. A few teachers may be brave enough to admit to the supervisor in an interview situation that they do not know how to use many of the materials which are available to them. Often, however, such critical information may be elicited only through anonymous questionnaires or other non-threatening procedures. It appears that many teachers are not clear about the staff function of supervisors and tend to regard them as line officers with hiring and firing power.

Designing a Study of Available Resources

SELF-EVALUATION CHECKLIST

Please do not write on this page. Use the Self-Evaluative Checklist Work Sheet, page 36 to record your answers.

1. Have you identified and listed the sources of instructional materials/learning resources available to teachers?
Yes____ No_____

2. Did you include a brief description of each source in your list?
Yes____ No_____

3. Have you developed a form for inventorying the learning resources available in a classroom at a given time?
Yes____ No_____

4. Have you prepared a report on procedures for determining which materials are not being used?
Yes____ No_____

5. Have you prepared a report on the reasons non-users do not exploit the sources of materials?
Yes____ No_____

6. Have you developed an evaluative checklist of learning materials characteristics?
Yes____ No_____

7. Have you evaluated a set of learning materials using your checklist?
Yes____ No_____

8. Have you prepared district guidelines to determine if materials are being used appropriately?
Yes____ No_____

9. Have you developed a form for recording observations of pupils and teachers using learning resources?
Yes____ No_____

OR

Have you developed a questionnaire or interview form that will elicit from teachers and pupils their perceptions of the desirability of given learning resources?
Yes____ No_____

10. Have you developed a questionnaire or interview form to be used with other professional personnel who observe and/or participate in the choice of learning resources?

Yes_____ No_____

11. Have you developed a questionnaire or interview form that will elicit from teachers suggestions about assistance needed to improve use of instructional materials?

Yes_____ No_____

Designing a Study of Available Resources

POST-TEST

Please use the Post-Test Work Sheet, page 37, to record your answers.

1. Name at least five sources of instructional materials available to teachers.

2. An evaluative checklist should request some non-evaluative information (cost, format, target audience) and some evaluative information. Name at least 4 areas on the checklist calling for evaluative information.

3. Which one of the following areas should not be included in district guidelines for determining whether appropriate use is being made of materials?

_____a. appropriateness for pupil

_____b. characteristics of the material

_____c. cost and producer of materials

_____d. potential for modification of the materials

_____e. quality of instructional design

4. What are the two major evaluative agencies for educational equipment?

5. Who are 3 groups of professionals who may be able to provide observational information on the extent of use of instructional materials in classrooms?

6. Name at least 6 problems in using instructional materials teachers may mention in an interview or on a questionnaire.

POST-TEST ANSWERS

1. District level library or learning resources center
   Library/learning resource center in a school
   Education service center collections
   Special Education Instructional Materials Center (SEIMC) or Area Learning Resource Center
   Textbook center
   Materials purchased by principal
   Materials purchased by teachers
   Instructional radio and television
   Library of Congress Division of Service to the Blind and Physically Handicapped

2. Rating of Definition of Objectives
   Rating of Identification of entry level behaviors
   Rating of Coverage of Content
   Rating of Technical quality of materials
   Rating of Procedures for evaluation from "inadequate" to "very good"
   Rating of Pupil interest in materials
   Rating of Feedback/Reinforcement

3. c

4. Educational Products Information Exchange Reports (EPIE)
   Library Technology Reports (LTR)

5. Principals
   Librarians/learning Resources specialist
   Teachers
   Supervisors

6. Lack of support staff
   Insufficient diagnostic data
   Inflexible workspace
   Unavailability of equipment
   Borrowing regulations
   Purchasing policies
   Lack of duplicate copies
   Insufficient planning time
   Lack of teacher preparation

MATERIALS TO BE EVALUATED

1. Cracking the Code, The Key to Independent Reading. Science Research Associates, 259 East Erie Street, Chicago, Illinois 60611.

   Teacher Guide by Donald Rosnussen and Lynn Goldbey
   Workbook
   Reader

2. Cuisenaire Rods, Number in Color.
   Cuisenaire Company of America, Inc.
   12 Church Street
   New Rochelle, N.Y. 10805

   Boxed Rods with teacher's manual, Opening Doors in Mathematics.

3. Sullivan, M. W. and Buchanan, C. D.

   Programmed Reading, Teacher Guide to Book 1, Series one/3d ed.
   Programmed Reading, Teachers Guide to Book 1, Series one/3d ed.
   Programmed Reading Books 1 and 1A, Book 2, Book 7
   Student Response Booklets, Book 1 and 1a, Book 2, Book 7
   Word Cards
   Filmstrips for Series I
   All from Webster/McGraw Hill
   1221 Avenue of the Americas
   New York, N.Y. 10020

BIBLIOGRAPHY

Belland, John C. and Sidney Rothenberg. Developing Instructional Materials for the Handicapped. Guidelines for Preparing Materials Suitable for Wide Distribution. Columbus: Ohio State University, National Center on Educational Media and Materials for the Handicapped, 1973.
Available from Computer Microfilm International Corporation, P.O. Box 190, Arlington, Virginia 22210. MF-654, HC-$3.29.

Educational Products Information Exchange EPIE Report #54. Improving Materials Selection Procedures: A Basic "How To" Handbook 1973.

Levie, H. W. Correspondence with author. University of Indiana, 1974 and 1975.

User's Handbook and Thesaurus: Instructional Materials Information Retrieval Program, 1973 Edition. SEIMC, The Department of Special Education, University of Texas at Austin.

APPLYING THE RESULTS OF THE MATERIALS UTILIZATION STUDY

Personnel

1. Teachers. Upon completion of a study such as mentioned above, teachers will expect to receive some information as feedback. A variety of approaches to reviewing the findings with teachers should be explored, such as a report to each faculty, small group meetings or workshops.

2. Administrators. Administrators, in addition to using the information for decision making, will probably wish to use the study to develop a time frame in which to implement recommendations of the study. What changes could be implemented immediately to improve the utilization of materials? What tasks will take several months to begin? Which recommendations must await another fiscal year and a revised budget in order to begin? Which recommendations can be implemented without massive changes in existing schedules, in-service days, and other plans that have already been formulated? Which will require long-range changes involving staffing, space, and purchase of materials?

In-Service Needs

1. In-service days. What needs have been uncovered in the process of this utilization study that point to topics which should be dealt with through in-service activities? What changes are expected to occur due to the in-service program? How much time can such activities be expected to take . . . either during pre-school workshops, release time workshops, or after school programs? What personnel are required to conduct the in-service activities? What should be the long range objectives of such activities? What costs would be incurred that should be budgeted for in the next two years?

2. Consultative assistance. Time during which the supervisor can provide together with other qualified professionals, consulatative advice on selecting materials for given pupils must be considered. If time does not permit individual consultation, perhaps working with three of four teachers at once would be a useful approach. Development of a profile form which would be completed for each pupil and learning need so the teacher can articulate precisely the individual requirement in terms of learning resources might be considered. Development of such a profile/checklist would be a worthwhile undertaking for a group of teachers working with the supervisor and materials specialists during in-service programs. Once the profile is developed, the next step might be the preparation of self-instructional materials or small group instructional materials including audiotapes and sample materials, to accompany the profile.

SOURCES

1. Manual of guidelines. If a manual of guidelines concerning materials for pupils does not exist, the possible development of one based on the findings of the study might be considered. It then could provide the basis for basic orientation of new teachers in the system and perhaps for one or two in-service sessions with all teachers. If a manual is not developed, teachers should at least be informed of the sources of materials for pupils, of the number and variety of materials available and the requirements and procedures for borrowing such materials.

2. Catalog of resources. A catalog or descriptive list of materials available to all teachers in the district is necessary, especially if it contains descriptive information about content and about learning needs the materials may meet. Although keeping such a catalog up-to-date presents many problems, it is essential if teachers are to be expected to use a variety of learning resources.

3. Evaluation and selection of resources. Teachers should have considerable input into the choice of materials purchased. Setting up the mechanics for preview and evaluation of materials is another type of in-service activity that would help teachers become more proficient in their knowledge of materials.

Refer to Educational Products Information Exchange. EPIE Report #54. Improving Materials Selection Procedures: A Basic "How To" Handbook 1973. (listed in Bibliography)

4. Local production of resources. Recognizing that at times there are no commercially prepared materials that meet precise learning needs, teachers may wish to have an opportunity to learn to produce simple materials themselves. Enlistment of the aid of audiovisual and learning resources specialists again is needed. Assuming, however, that if one or a few pupils need materials especially prepared for them there may also be a demand for such materials on a wider scale, teachers may wish to consider the possibility of preparing materials to meet given pupils' needs and then making them available for wider distribution. As an example of the needs and procedures called for in such reproduction and wider distribution,

Refer to John C. Belland and Sidney Rothenberg, Developing Instructional Materials for the Handicapped. Guidelines for Preparing Materials Suitable for Wide Distribution. Columbus: Ohio State University, National Center on Educational Media and Materials for the Handicapped, 1973. (listed in Bibliography)

5. Use of network. Other teachers may require detailed instruction and considerable encouragement to use the Special Education Resource Center network. Instruction in accessing the resources of the network through the regional service center or through the Area Resource Center may need to be given. For consultative help in completing request forms for searches of computerized data banks available through the network at an Area Resource Center,

Refer to: User's Handbook and Thesaurus: Instructional Materials Information Retrieval Program, 1973 Edition. SIMC, The Department of Special Education, University of Texas at Austin. (listed in Bibliography)

Designing a Study of Available Resources

SELF-EVALUATION CHECKLIST

WORK SHEET

Name_____ Date_____

Soc. Sec. No._____-_____-_____

Your Score_____

1. Yes _____ No _____
2. Yes _____ No _____
3. Yes _____ No _____
4. Yes _____ No _____
5. Yes _____ No _____
6. Yes _____ No _____
7. Yes _____ No _____
8. Yes _____ No _____
9. Yes _____ No _____
10. Yes _____ No _____
11. Yes _____ No _____

If you did not check "yes" on each item, either add the information to your task assignment or write a brief explanation as to why the item was not included.

Designing a Study of Available Resources

POST-TEST WORK SHEET

Name_____ Date_____

Soc. Sec. No._____-_____-_____ Your Score_____

1._____

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2. _____

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4._____

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5._____

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6. _____

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LIST OF INDEPENDENT STUDY MATERIAL

DEVELOPED BY THE SEST PROJECT

The Delphi Technique for Curriculum Planning
A-1 Setting Instructional Goals (Document #10a)

Designing a Concept Development Unit
A-2 Designing Instructional Units (Document #10b)

Designing a Study of Available Resources
B-3 Evaluating the Utilization of Learning Resources (Document #10c)

Developing Job Descriptions
C-1 Developing a Staffing Plan (Document #10e)

Material Selection
B-1 Evaluating and Selecting Learning Materials (Document #10d)

Preparing School News Releases for the Media
G-1 Informing the Public (Document #10 h)

Selecting Personnel for a New School Program
C-2 Recruiting and Selecting Personnel (Document #10f)

Self-Instructional Module on Time Utilization
D-1 Revising Existing Structures (Document #10g)

OTHER RELATED PUBLICATIONS

A Directory of Competency-Guided Supervisory Training Materials for Independent Study (Document #9)

A Selected Bibliography for Professional Supervisory Competencies (Document #8)